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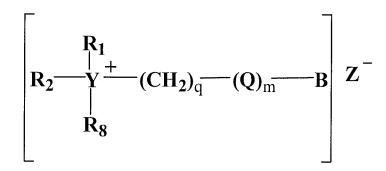
(54) Oil containing starch granules for delivering benefit-additives to a substrate

(57) An oil containing starch granule comprising:

(a) a starch, said starch forming a matrix for said granule;

(b) an oil, said oil being capable of providing a benefit-additive to a substrate upon contact therewith, said substrate being selected from the group consisting of fabrics, hard surfaces, hair and skin; and

(c) an effective amount of a quaternary ammonium compound for inhibiting the migration of said oil to the surface of said starch granule, said compound being represented by the following structure:



wherein R₁ and R₂ are each independently, H or:

(a) C_1 - C_{22} alkylenecarboxy moiety having the formula:

 $-(CH_2)_eR_3$ wherein R_3 is NHCOR₄; or $-OCOR_4$; or $-NR_5COR_4$; and wherein R_4 and R_5 are each independently C_1-C_{22}

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alkyl or alkenyl; and e is an integer from 1 to 22; or

- (b) C₁-C₂₂ linear or branched alkyl; or
- (c) C₁-C₂₂ linear or branched alkenyl; or
- (d) C2-C22 substituted or unsubstituted alkylenoxy; or
- (e) C₃-C₂₂ substituted or unsubstituted alkylenoxy alkyl; or
- (f) C₆-C₂₂ substituted or unsubstituted aryloxy; or
- (g) C₇-C₂₂ substituted or unsubstituted alkylenearyl; or
- (h) C_7 - C_{22} substituted or unsubstituted alkyleneoxyaryl; or
- (i) C₇-C₂₂ oxyalkylenearyl; or
- (j) an anionic unit having the formula:

-(CH₂)_vR₆

wherein R_6 is $-SO_3M$, $-OSO_3M$, $-OPO_3M$, CI or mixtures thereof, wherein M is hydrogen, or one or more salt forming cations sufficient to satisfy charge balance, or mixtures thereof; R_6 may also be choloride; y is an integer from 1 to about 22; and

(k) a mixture comprising at least two of (a) through (j); and

q is an integer from 0 to about 22; m is an integer from 0 to about 22; Q is $(CH_2)_m$ or (CH_2CHR_7O) ; R_7 is independently hydrogen, methyl, ethyl, propyl or benzyl; and mixtures thereof; B is H or OH; Y is N; R_8 is H or C_1 - C_4 alkyl; Z- is a counter anion, and preferably chloride,or methyl sulfate.



EUROPEAN SEARCH REPORT

Application Number EP 10 15 5014

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